

**IN THE CLAIMS:**

The following is a listing of the claims, with claims 1-5, 9-14, 18-22 and 26, shown as amended and with claims 6-8, 15-17 and 23-25 cancelled.

## LISTING OF CLAIMS

Claim 1. (currently amended) ~~An apparatus for securing communication information in CDMA communication system~~ A terminal for CDMA mobile communication system of IS-95 standard having data protection function, comprising:

a vocoder encoding the input analog signal as an information bit having a predetermined size and generating a vocoder packet ~~information bit~~;

an encryptor encrypting the vocoder packet ~~information bit~~ from said vocoder and generating the encrypted vocoder packet;

a vocoder framer adding a format bit/format bits indicating the vocoder rate and, as a result, generating the encrypted vocoder frame;

a CDMA framer adding a frame quality indicator and the encoder tail bits to the encrypted vocoder ~~frame~~ packet ~~information bit~~ from said vocoder framer said encrypter to configure as a CDMA frame;

a CDMA frame transmitter transmitting a CDMA frame which passes a convolutional encoder, interleaver, and modulator in sequence, to a base station through an assigned frequency band;

a CDMA frame receiver receiving a signal from the base station and reproducing the CDMA frame;

a CDMA deframer extracting the encrypted vocoder ~~frame~~ packet ~~information bit~~ from the CDMA frame reproduced by said CDMA frame receiver;

a vocoder deframer deleting a format bit/format bits indicating the vocoder rate from the encrypted vocoder frame and, as a result, extracting the encrypted vocoder packet;

a decryptor decrypting the encrypted vocoder packet information bit extracted by said vocoder deframer CDMA deframer; and

a vocoder decoding the decrypted vocoder packet information bit from said decryptor as an analog signal;

wherein ~~said encryptor encrypts the vocoder packet information bit using a block cipher and a security key, said decryptor decrypts the encrypted vocoder packet information bit using said block cipher and a security key shared with the other mobile.~~

Claim 2. (currently amended) The apparatus The terminal for CDMA mobile communication system having data protection function according to claim 1, wherein said encryptor encrypts using a block cipher such as DES, 3DES or a stream cipher, and a secret key, said decryptor decrypts using said block cipher or said stream cipher and the secret key shared by the other terminal the block cipher is DES.

Claim 3. (currently amended) The apparatus The terminal for CDMA mobile communication system having data protection function according to claim 1, wherein said encryptor performs or bypasses the encryption by a security mode that a user set to ON or OFF enters.

Claim 4. (currently amended) The apparatus The terminal for CDMA mobile communication system having data protection function according to claim 3, wherein said encryptor generates a predetermined pattern corresponding to ON or OFF of the security mode ON or OFF and adds the generated pattern to the format bit/bits the information bit of the traffic channel, and transmits it to the other terminal mobile, wherein said decryptor performs or bypasses the decryption by setting ON or OFF of said security mode by said received pattern.

Claim 5. (currently amended)      The apparatus The terminal for CDMA  
mobile communication system having data protection function according to claim 4 3,  
wherein said encryptor adds the encrypted secret security key to the format bit/bits and  
the predetermined security mode pattern the information bit of the traffic channel when  
the security mode is set to ON, wherein said decryptor recovers the secret key included  
in the vocoder frame of the traffic channel, and decrypts the encrypted vocoder packet  
information bit using said recovered secret key by said security key included in the  
information bit of the traffic channel.

Claims 6-8. (Deleted).

Claim 9. (currently amended)      The apparatus The terminal for CDMA  
mobile communication system having data protection function according to claim 1,  
wherein said encryptor encrypts all or a the part of the vocoder packet information bits,  
wherein said decryptor decrypts all or a the part of the encrypted vocoder packet  
information bits.

Claim 10. (currently amended)      A method for encrypting and  
transmitting information bit in CDMA mobile communication system of IS-95 standard,  
for securing communication information in CDMA communication system comprising the  
steps of:

- (a) encoding an input analog signal as an information bit having a predetermined size and generating a vocoder packet information bit;
- (b) encrypting said encoded vocoder packet information bit using a block cipher and a security key;

(c) adding a format bit/format bits indicating the vocoder rate, resulting the encrypted vocoder frame, and then adding a frame quality indicator and the encoder tail bits to the encrypted vocoder frame packet information bit and configuring it as a CDMA frame; and

(d) transmitting the CDMA frame which passes a convolutional encoder, interleaver, and modulator in sequence, to a base station through an assigned frequency band.

Claim 11. (currently amended) A method for encrypting and transmitting information bit in CDMA mobile communication system according to claim 10, wherein said step (b) encrypts using a block cipher such as DES, 3DES or a system cipher, and a secret key block cipher is DES.

Claim 12. (currently amended) A method for encrypting and transmitting information bit in CDMA mobile communication system according to claim 10 11, wherein said step (b) performs or bypasses of encrypting comprises the step of performing or bypassing the encryption by a security mode that a user set enters.

Claim 13. (currently amended) A method for encrypting and transmitting information bit in CDMA mobile communication system according to claim 12, wherein said step (b) generates of encrypting comprise the steps of generating a predetermined pattern corresponding to ON or OFF of the security mode ON or OFF and adds adding the pattern to the information bit of the traffic channel.

Claim 14. (currently amended) A method for encrypting and transmitting information bit in CDMA mobile communication system according to claim

13, wherein said step (b) ~~of encrypting~~ comprises the step of adding said secret security key to the information bit of the traffic channel when the security mode is set to ON.

Claims 15-17 deleted.

Claim 18. (currently amended) The method for encrypting and transmitting information bit in CDMA mobile communication system according to claim 10, wherein said step (b) ~~encrypts~~ ~~of encrypting~~ comprises the step of encrypting only a part of the vocoder packet information bits.

Claim 19. (currently amended) A method for receiving and decrypting information bit encrypted by terminal for CDMA mobile communication system of IS-95 standard, for securing communication information in CDMA communication system comprising the steps of:

(a) receiving a signal from a base station, and reproducing it as a CDMA frame;

(b) extracting an encrypted vocoder frame ~~packet~~ information bit from the reproduced CDMA frame;

(c) extracting the encrypted vocoder packet from the extracted vocoder frame;

(d) ~~decrypted the encrypted vocoder packet information bit by block cipher and a security key~~; and

(e) decoding the decrypted vocoder packet information bit .

Claim 20. (currently amended) The method for receiving and decrypting information bit encrypted by terminal for CDMA mobile communication system according to claim 19, wherein said step (b) decrypts using a block cipher such as DES, 3DES or a system cipher, and a secret key block cipher is DES.

Claim 21. (currently amended) The method for receiving and decrypting information bit encrypted by terminal for CDMA mobile communication system according to claim 19 20, wherein said step (d) set of decrypting comprises the steps of setting a security mode to ON or OFF according to the predetermined pattern included in the received information bit of the traffic channel, and determines determining according to the security mode whether the decryption process is to be performed or not.

Claim 22. (currently amended) The method for receiving and decrypting information bit encrypted by terminal for CDMA mobile communication system according to claim 21, wherein said secret security key is that included in the information bits of the traffic channel received when the security mode is set to ON.

Claims 23-25 deleted.

Claim 26 (currently amended) The method for receiving and decrypting information bit encrypted by terminal for CDMA mobile communication system according to claim 19, wherein said step (d) decrypts of decrypting comprises the steps of decrypting only a the part of the encrypted information bit from the encrypted vocoder packet information bit.